LESSON MAKER PRO

Who Was Asked?

Find the whole group and the group surveyed.

GRADE 7 · 7.DSP.A.10.a

7.DSP.A.10.a "Differentiate between a sample and a population."

NAME _____ DATE _____

POPULATION OR SAMPLE?

The population is the whole group you want to learn about. A sample is the part of that group you collect information from. To find the fraction surveyed, divide the sample size by the population size.

WORKED EXAMPLE

A drama club polls some members. Use the table to name the population and sample, then find the fraction surveyed.

DRAMA CLUB POLL

Group	Students
All club members	72
Members surveyed	12

1. The population is all 72 club members.
2. The sample is the 12 members surveyed.
3. Divide: 12/72 = 1/6.

Answer: Population: 72 club members. Sample: 12 surveyed members. Fraction surveyed: 1/6.

PRACTICE 4 problems

1 A school has 80 seventh graders. Of those students, 20 answer a lunch survey. Name the population and sample.

ANSWER _____

2 A comic club has 100 members. A survey includes 25 of them. What fraction of the club is in the sample?

ANSWER _____

3 A coach asks 30 of the 150 athletes at a school about practice times. Give the population size and sample size.

ANSWER _____

4 Of 54 students on a field trip, 18 answer a poll. Is the group that answers a sample or the population? What fraction answers?

ANSWER _____

APPLY IT Show your work

1 An esports club polls members about a new game. Use the table to name the population and sample, then find the fraction polled.

ESPORTS CLUB POLL

Group	Students
All club members	210
Members polled	42

ANSWER _____

2 A school wants to know which song its 135 dance ticket holders want to hear first. It asks 45 ticket holders. Name the population and sample. What fraction of ticket holders were asked?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A club has 180 members. It polls 35 members on Monday and 25 on Tuesday. Ten members answer on both days. How many different members are in the sample? What fraction of the club is that? Explain why you did not add 35 and 25 to get the sample size.

WORK SPACE AND ANSWER

ANSWER KEY

Who Was Asked?

GRADE 7 · 7.DSP.A.10.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A school has 80 seventh graders. Of those students, 20 answer a lunch survey. Name the population and sample.	**Population: 80 seventh graders. Sample: 20 seventh graders who answer the survey.**
2	A comic club has 100 members. A survey includes 25 of them. What fraction of the club is in the sample?	**25/100 = 1/4**
3	A coach asks 30 of the 150 athletes at a school about practice times. Give the population size and sample size.	**Population size: 150. Sample size: 30.**
4	Of 54 students on a field trip, 18 answer a poll. Is the group that answers a sample or the population? What fraction answers?	**The group that answers is a sample. The fraction is 18/54 = 1/3.**

PART 2 · APPLY IT

1. **Population: 210 club members. Sample: 42 polled members. Fraction polled: 1/5.** The whole club is the population, and the members polled are the sample. Divide 42 by 210 to get 1/5.
2. **Population: 135 dance ticket holders. Sample: 45 ticket holders asked. Fraction asked: 1/3.** The question is about all 135 ticket holders, but only 45 were asked. Divide 45 by 135 to get 1/3.

CHALLENGE

The sample has 35 + 25 - 10 = 50 different members. The fraction is 50/180 = 5/18. Subtract the 10 members who answered twice so each person is counted once.

Accept equivalent fractions. For the challenge, the sample includes each person only once.